

Title (en)

Method of preparing dielectric ceramic material and dielectric resonator

Title (de)

Verfahren zur Herstellung von dielektrischem keramischen Material und dielektrischer Resonator

Title (fr)

Procédé de fabrication de matériau céramique diélectrique et résonateur diélectrique

Publication

EP 1020416 A2 20000719 (EN)

Application

EP 00300256 A 20000114

Priority

- JP 830699 A 19990114
- JP 830799 A 19990114

Abstract (en)

There is provided a dielectric ceramic composition wherein a main crystal phase is a perovskite-type crystal phase, comprising a complex oxide which contains, as a metal element, at least a rare earth element, Al, M (M is Sr, alternatively, Sr and Ca) and Ti, and is represented by the following composition formula: $a\text{Ln}_2\text{O}_x \text{ bAl}_2\text{O}_3 \text{ cMO dBaO eTiO}_2$ wherein Ln is a rare earth element; and a, b, c, d and e is a mole ratio in a predetermined range, and more specifically comprising a solid solution of $\text{LnAlO}(\text{X}+3)/2$ ($3 \leq x \leq 4$) and RTiO_3 (R is an alkaline earth metal containing at least Sr). This composition provides a large dielectric constant epsilon r and a high Q value in a high frequency region, and also lessens the variation in dielectric constant epsilon r, Q value, and resonance frequency temperature coefficient tau f. <IMAGE>

IPC 1-7

C04B 35/465; **C04B 35/44**; **H01P 7/10**

IPC 8 full level

C04B 35/44 (2006.01); **C04B 35/465** (2006.01); **H01P 7/10** (2006.01)

CPC (source: EP KR US)

C04B 35/44 (2013.01 - EP US); **C04B 35/465** (2013.01 - EP US); **H01G 4/1218** (2013.01 - KR); **H01P 7/10** (2013.01 - EP KR US)

Cited by

CN110734284A; CN105130426A; US6995106B2; US8029923B2; WO2004074539A1

Designated contracting state (EPC)

DE FI GB SE

DOCDB simple family (publication)

EP 1020416 A2 20000719; **EP 1020416 A3 20010328**; **EP 1020416 B1 20051130**; DE 60024338 D1 20060105; DE 60024338 T2 20060614; KR 100415757 B1 20040131; KR 20000071242 A 20001125; US 6503861 B1 20030107

DOCDB simple family (application)

EP 00300256 A 20000114; DE 60024338 T 20000114; KR 20000001389 A 20000112; US 48197200 A 20000112